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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/815,267	03/31/2004	Jos Bastiaens	08CN8851-6	7478
23413	7590	10/12/2006	EXAMINER	
CANTOR COLBURN, LLP			ZEMEL, IRINA SOPHIA	
55 GRIFFIN ROAD SOUTH			ART UNIT	
BLOOMFIELD, CT 06002			PAPER NUMBER	

1711

DATE MAILED: 10/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/815,267

Applicant(s)

BASTIAENS ET AL.

Examiner

Irina S. Zemel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-12, 14-19, 21-25, 27-32, 34-39 and 41-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-12, 14-19, 21-25, 27-32, 34-39, 41-47 and 48-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 103***

Claims 1-4, 7-12, 31, 15-16, 30-32, 34-35, 37- 39, 42-47 and 49-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weber in combination with Schmidt.

The rejection stands as per reason of record as previously applicable to claims rejected over Weber (and incorporated herein by reference).

Insofar as the recitation of the molecular weights of polystyrene in the base claims, the rejection is maintained in view of Schmidt as previously applicable to dependent claims reciting the same limitation to the molecular weights (i.e., claims 5, 13, 20, 26, 33, 40, 48)

Claims 6, 14, 17-19, 21-25, 27-29, 36, 41, are rejected under 35 U.S.C. 103(a) as being unpatentable over Weber in combination with Schmidt and further in view of Allen.

The rejection stands as per reason of record and discussions set forth above.

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Claims 1-4, 7-12, 15-16, 30-32, 34, 35, 37-39, 42-47, and 49-53 are rejected under 35 U.S.C. 103(a) as obvious over Weber in combination with Schmidt and further in combination with Green.

The rejection stands as per reason of record as previously applicable to claims rejected over Weber in combination with Green (and incorporated herein by reference).

Insofar as the recitation of the molecular weights of polystyrene in the base claims, the rejection is maintained in view of Schmidt as previously applicable to dependent claims reciting the same limitation to the molecular weights (i.e., claims 5, 13, 20, 26, 33, 40, 48)

Claims 6, 14, 17-19, 20-25, 27-29, 36, 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weber in combination with Schmidt and Allen and further in combination with Green.

The rejection stands as per reason of record and discussions set forth above.

### ***Response to Arguments***

Applicant's arguments filed 8-10-2006 have been fully considered but they are not persuasive. With respect to the arguments that none of the claims, as amended, are anticipated by any of the final reference, the examiner agrees with this statement, thus, the anticipatory rejection have been withdrawn. However, the arguments regarding unobviousness of the claimed molecular weights of the polystyrene polymer are not found persuasive. The applicants argue that the primary reference, Weber, does not disclose the molecular weight of polystyrene polymer (PS) used in the invention. The

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examiner agrees with this statement, and, moreover, the examiner acknowledged it in the previous office action. The applicants further argue that since Schmidt is directed to injection molding process and the Weber reference discloses processing of the foamed material via compression molding or extrusion, the combination of references is improper. The examiner disagrees. The Weber reference is silent to the molecular weight of PS. The fact that the reference does not disclose one of the properties of the PS suitable for the invention clearly implies that this characteristic is not critical to the invention and various known materials may be used in this invention. The secondary reference, Schmidt, was merely cited to support the fact that the PS of the claimed molecular weight are known in the art and commercially available to an ordinary artisan. As admitted by the applicants themselves in their response dated 8-10-2006 in the paragraph bridging pages 12 and 13 " In contrast [to injection molding processing], melt flow is of less concern in foamed materials and typically distribution of the blowing agent and other factors associated with foaming such as those taught by Schmidt are of concern. More specifically, in expandable particulate materials melt flow has little or no relevance in processing because the expandable particulate materials expand to fill a mold and have little or no need to flow." (Emphasis added) There is a direct correlation between the melt flow of a polymer and its molecular weight. In other words, while the molecular weight may be of importance for polymer intended to be processed by injection molding, it is of little or no importance for the foamed materials disclosed in the primary reference, Weber. Thus, choosing PS with ANY known molecular weight, such as those claimed by the applicants for the invention disclosed in Weber would have

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been obvious with reasonable expectation that, since Mn of the base polymer is not critical, PS of any known Mn would produce adequate results. No evidence of unexpected results that can be attributed to the claimed molecular weights is presented anywhere on the record. The Schmidt reference, as discussed above, was merely cited to show that PS with claimed molecular weights are known and available. Moreover, even in the inventions where, as stated by the applicants, melt flow or molecular weight of the base polymer is of great importance, such as invention disclosed by Schmidt, the molecular weights of the suitable polymers are disclosed as a broad range of between 100,000 to 1,000,000. This clearly implies, that it would have been within routine knowledge of an ordinary artisan to select polymers with desired molecular weight or melt flow to obtain the final composition suitable for a specific method of processing.

Thus, as discussed above, in the absence of showing of unexpected results that can be clearly attributed to the claimed molecular weights of the recited PS, choosing PS with such molecular weights would have been obvious and within routine knowledge of an ordinary artisan.

All other arguments presented by the applicants regarding additional outstanding rejection are also directed to the molecular weights of the claimed PS, and, thus, are discussed and answered as above.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

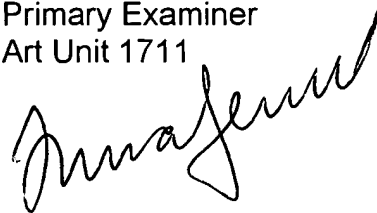
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Irina S. Zemel whose telephone number is (571)272-0577. The examiner can normally be reached on Monday-Friday 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on (571)272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Irina S. Zemel  
Primary Examiner  
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A handwritten signature in black ink, appearing to read 'Irina Zemel', written over the printed name and title.

ISZ